Surface/Tunnel Hybrid Overview

A newly configured option, called the Surface/Tunnel Hybrid, costs an estimated $3.4 billion by combining a tunnel with improvements to transit service and surface streets. Key elements of the project include:

- A smaller cut-and-cover, side-by-side tunnel
- Improvements to downtown streets and transit
- Access maintained for West Seattle and Ballard
- New pedestrian promenade with relocation of the Alaskan Way surface street toward downtown.

This new Surface/Tunnel Hybrid is $1.2 billion less than the previous cut and cover tunnel and scales back the tunnel size. Instead of stacking the roadways in a deep trench, the Surface/Tunnel Hybrid puts them side by side in a shallower, wider tunnel. Using downtown surface streets more effectively and adding transit service during peak commuter periods reduces traffic demand in the tunnel.

The Surface/Tunnel Hybrid allows for six lanes of traffic during peak hours by managing the shoulders as additional lanes and four lanes during non-peak hours when the additional capacity is not needed. Following the same estimating technique used for other Viaduct replacement options, the Surface/Tunnel Hybrid can be built for an estimated $3.41 billion.

A new Alaskan Way surface street would function on the surface as it does today, with additional turn-lane improvements and the Waterfront Streetcar, enabling the street to carry the 13,000 more vehicles projected each day. Constructing the Surface/Tunnel Hybrid over Elliott and Western Avenues, with an enhanced northbound exit from the tunnel to Western Avenue and an enhanced southbound entrance from Elliott to SR 99, maintains access and mobility for Ballard and Interbay residents. Meters may control the flow of traffic feeding into the tunnel via southbound on-ramps.

Many of the surface and transit improvements made during construction of the Surface/Tunnel Hybrid will become permanent. These improvements will provide a more efficient use of the Alaskan Way surface street and make investments in transit service to carry thousands more bus riders daily.

There are also three types of transit investments that will improve mobility during and after construction of the Surface/Tunnel Hybrid that were developed from Metro's Transit Blueprint and Seattle's Center City Access Plan and include: capital projects, which move buses into and out of downtown faster; more frequent bus service; and better management of city streets to prioritize transit speed and reliability.

Capital Projects

- *Fourth Avenue South Ramp from Spokane Street Viaduct.* Transit service from West Seattle to downtown will be affected by the construction and closure of the Alaskan Way Viaduct. A new ramp, featuring a transit priority lane, will be constructed from the Spokane Street Viaduct to Fourth Avenue South. This ramp provides more direct routing of West Seattle-based local and express buses into the downtown area via Fourth Avenue and the connection to the E-3 busway. This project is part of the Spokane Street Viaduct Widening Project and has received funding commitments from WSDOT and the City of Seattle.
- *Lander Street Overpass*. In conjunction with WSDOT, the City of Seattle is planning to construct a bridge over the BNSF mainline at Lander Street in the SODO neighborhood. This

grade separation will improve mobility for freight in the South Downtown Industrial Area, and will provide an important transit linkage between the E-3 busway and First Avenue South.

- Transit related improvements will be made along Virginia, Stewart and Howell streets and Olive Way.

More Frequent Bus Service
The Surface/Tunnel Hybrid invests in additional transit service to downtown Seattle, including leveraging Metro's new RapidRide service to West Seattle, Ballard and along the Aurora corridor. Construction mitigation investments in bus service are projected to serve an additional 21,000 transit riders daily.

Street Management
The Surface/Tunnel Hybrid includes strategies, such as the permanent configuration of Third Avenue as a transit-priority route, to reduce transit times to downtown Seattle and travel through the Central Business District and to the Waterfront.

Financial Plan for Surface/Tunnel Hybrid ($ in millions)

Estimated Cost of the Surface/Tunnel Hybrid	$3,409
Secured Funding to Date	$2,415
- State 2007 Capital Funding Request	$425
Total Secured and 2007 Request	**$2,840**
Current Gap for Surface/Tunnel Hybrid	**$569**
City Resources/Responsibilities	
- Utility Relocation Costs/Open Space	$500
- Local Improvement District	$250
Total City Obligations	**$750**
Revenue Available Above Most Likely Cost	**$181**

Cost Savings with the Surface/Tunnel Hybrid ($ in millions)

	6 – Lane Tunnel	**Surface/Tunnel Hybrid**	**Savings**
South End	$417	$405	$12
Central Waterfront	$1,869	$1,627	$242
North End	$326	$90	$236
Risk	$619	$345	$274
Inflation	$1,403	$943	$460
Total	**$4,634**	**$3,410**	**$1224**

Elevated Structure Overview

The Elevated Structure Alternative described in the Supplemental Draft Environmental Impact Statement is estimated to cost $2.8 billion.

The Elevated Structure Alternative replaces the existing structure with a stacked aerial structure along the central waterfront. For the most part, the new aerial structure would have three lanes in each direction, and it would have wider lanes and shoulders than the existing viaduct. Between S. King Street and the ramps at Columbia and Seneca Streets, SR 99 would have four lanes in each direction. The existing ramps at Columbia and Seneca Streets would be rebuilt.

The new elevated structure would be 11.5 to 35 feet wider than the existing viaduct from south of S. Main Street up to Union Street. Near S. King Street to south of S. Main Street, the elevated structure would be 54 to 74 feet wider than the existing viaduct as SR 99 transitions from a side-by-side at grade roadway in the south to a new double-level elevated structure. *(SDEIS, Page 19)*

The Battery Street Tunnel would be improved by adding emergency exits, upgrading the electrical system, building a fire suppression system, and improving the ventilation system.

A new Alaskan Way surface street would function on the surface as it does today, with additional turn-lane improvements and the Waterfront Streetcar. Constructing the Elevated Structure over Elliott and Western Avenues, with an enhanced northbound exit from the structure to Western Avenue and an enhanced southbound entrance from Elliott to SR 99, maintains access and mobility for Ballard and Interbay residents.

Financial Plan for Elevated Structure ($ in millions)

Estimated Cost of the Elevated Structure	$2,818
Secured Funding to Date	$2,415
- State 2007 Capital Funding Request	$425
Total Secured and 2007 Request	**$2,840**

Cost of the Elevated Structure ($ in millions)

	Elevated Structure
South End	$420
Central Waterfront	$851
North End	$178
Risk	$563
Inflation	$806
Total	**$2,818**